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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DARBY & DARBY P.C.
805 Third Avenue
New York, NY 10022

EXAMINER	
SZPERKA, MICHAEL EDWARD	
ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/091,135	KING ET AL.	
	Examiner	Art Unit	
	Michael Szperka	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 7-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 7-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's response and amendments received August 24, 2006 are acknowledged.

Claims 1 and 7-9 have been amended.

Claims 5, 6, and 20-35 have been canceled.

Claims 1-4 and 7-19 are pending in the instant application.

Specification

2. Applicant's amendments to the specification are acknowledged.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-4 and 7-19 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the reasons of record.

The office action mailed May 3, 2006 states:

> Applicant's arguments filed 12/21/05 and entered 2/7/06 have been fully considered but they are not persuasive. Reconsideration of the claimed invention has also introduced additional issues not presented in the rejection of record. These new grounds of rejection as well as a response to applicant's arguments concerning the rejection of record will be addressed where appropriate below.
>
> Applicant has claimed hybrid proteins that have reduced allergenicity but retained immunogenicity that comprise peptide epitopes and a scaffold protein structurally homologous to the allergen protein from which the peptide epitopes are obtained. These hybrid proteins are also recited as having the peptide epitope in a surface accessible region and as maintaining a native conformation. To support such a genus of hybrid proteins, applicant has provided examples wherein peptide epitopes from the antigen 5 protein of *Vespula vulgaris* are used to replace the corresponding positions in the *Polistes annularis* antigen 5 scaffold protein (see particularly examples 1-8 of the instant specification). The rejection of record indicated that experimental data provided in applicant's specification demonstrates that a peptide epitope of 8 amino acids did not work in generating a functional hybrid protein (see particularly table 3B on page 56), that insertion of peptide fragments into scaffold proteins can lead to unpredictable destabilization of the conformation of the resulting molecule (the teachings of US2004/017116, of record, see entire document), and that hybrid proteins comprising 20-30 residues in the peptide epitope sequence have maximal reduction in allergenicity

while still maintaining immunogenicity (King et al., J Immunology, 2001, 166:6057-6065, of record, see entire document, particularly the last sentence of the paragraph that spans pages 6064 and 6065). Applicant argues that the prior art enables peptides of about 6 amino acids because Harlow et al. (supplied by applicant and cited on the form 892 that accompanies this office action) teach that the smallest synthetic peptide that consistently elicits an antibody response is 6 amino acids, that the teachings concerning destabilization of polypeptide structure taught in the '116 publication are refuted by the evidence of the instant specification, and that the presence of an non-working example of an 8mer peptide epitope does not indicate that such small sequences (i.e. 8 or less) are inoperable given the four examples wherein epitopes of between 9 and 11 amino acids were used. The examiner respectfully disagrees.

Applicant begins by arguing that the claims are enabled for hybrid proteins comprising "about 6" amino acids. The specification does not appear to define what range of values are encompassed by the term "about", but it is reasonable that "about 6" includes sequences less than 6 amino acids. Based upon applicant's arguments and the supplied Harlow et al. reference, epitopes under 6 amino acids are not expected to work and as such are not enabled. Further, Harlow et al. indicate that epitopes of 10 amino acids should be used as the lower limit for antibody production in the last sentence of the paragraph in which applicant's quotation appears (see page 76 of Harlow et al.) and King et al. teach that epitopes of 20-30 amino acids are preferred in the synthesis of hybrid allergen proteins. It is noted that applicant successfully generated a hybrid protein with the recited functional properties that comprised a 9 amino acid peptide epitope but a hybrid protein comprising an 8 amino acid epitope did not elicit an antibody response (see particularly table 3B on page 56). In light of the above, it appears clear that the claims are not enabled for peptide epitopes of "about 6" amino acids, especially since such a recitation reads on epitopes less than 6 amino acids.

B cell epitopes (i.e. those recognized by antibodies) come in two types, linear and discontinuous (Goldsby et al., Immunology, 5th edition 2003, pages 62-67, see entire selection). Discontinuous epitopes are made up of amino acids that are close together in the native tertiary structure of an antigen but are far apart in the primary amino acid sequence, and antibodies typically contact 15-22 amino acids in binding to an epitope (Goldsby et al., see particularly pages 63 and 64). It is known that the majority of B cell epitopes present on allergens are of the discontinuous type and that such epitopes depend on the native conformation of the protein (King et al., J Immunology, 2001, 166:6057-6065, of record, see entire document, particularly the second paragraph of the left column of page 6057 and the last sentence of the paragraph that spans pages 6063 and 6064). As such, it appears that many of the peptide epitopes that applicant intends to include in the claimed hybrid proteins are linear determinants based upon their small size. On page 8 of the response filed 12/21/05 and entered 2/7/06 applicant states that he declines to characterize the peptide epitopes, saying that the recited peptide epitope may be a linear epitope, a conformational epitope, or some combination of linear and conformational epitopes. Since by definition discontinuous or conformational epitopes include amino acids widely separated in the primary amino acid sequence and since it is not reasonable that a 6 amino acid peptide includes widely separated amino acid residues, such epitopes are linear determinants. Applicant argues that the examiner's reliance on the '116 publication is misplaced since the instant specification refutes the general teaching that insertion of a linear peptide epitope from an insect allergen into an insect scaffold will destabilize the three-dimensional structure of the resulting molecule since the instant specification succeeds in doing what the '116 publication teaches will not work. However, the working examples of instant specification did not insert peptides into a scaffold protein such that the resulting molecule contains all of the sequence of the scaffold plus the inserted peptide thus making the hybrid protein larger than the starting scaffold, but rather applicant's invention involves swapping part of the scaffold protein with a peptide epitope from the same structural region of a related allergenic protein such that the overall length and structure of the hybrid protein as compared to the scaffold protein is not altered. Note that the claims as currently recited read on both inserting peptide epitopes to make longer hybrid proteins as well swapping peptide epitopes of equivalent positions between an antigenic protein and a scaffold protein since a peptide epitope from a surface exposed loop of an allergen when either inserted or substituted into a surface exposed loop of the scaffold protein would make the peptide epitope surface exposed and in the same position, i.e. it would be in the surface exposed loop. Applicant argues that the recitation that the hybrid molecule has a native conformation is sufficient to address such an issue. However, as discussed above, insertion of peptides into a scaffold such that the length of the primary amino acid sequence is altered is unpredictable, and it is not clear if the "native conformation" is that of the allergen from which the peptide is isolated or the conformation of the scaffold protein. Such a discussion is relevant because since unless the two sequences are of equivalent length and sequence there must be at least some structural difference between the two polypeptides and it is not clear which structure needs to be maintained to meet the limitations of the claimed invention.

The specification does not appear to provide clear guidance as to what is required for a scaffold protein to be selected as "structurally homologous" to the allergen protein. The specification appears to suggest that structures solved by X-ray crystallography can be used, but guidance as to how similar two structures must be, such as percent deviation in the position of the Cα traces or other measures of structural similarity do not appear to be provided. For proteins for which no structure has been solved, applicant indicates that software for aligning sequences such as Pileup, Gap and BestFit can be used, but the parameters used by such software for comparison are not specified, and as such the criteria that are to be used in making the determination of homology are uncertain. It is known in the art that amino acid sequence identity of 50% does not guarantee structural similarity (Yuan et al., Proteins, 1998, 30:136-143, see entire document), and that even a single point mutation in a polypeptide sequence can lead to surprising alterations in protein structure and activity (Sergel et al., J. Virol. 2000, 74:5101-5107, see entire document, particularly the abstract, introduction and the last sentence in the right column of page 5106). Given that the art recognizes difficulties in identifying structurally homologous proteins and the apparent lack of guidance in the specification concerning how a skilled artisan is to overcome these difficulties, it does not appear that applicant's working examples concerning the replacement of parts of antigen 5 of *P. annularis* with peptides from the corresponding position of antigen 5 of *V. vulgaris* convey to the claimed genus of all antigens and all scaffold proteins. Note that in applicant's working examples both wasp antigen 5 polypeptides are allergens, although allergic individuals generally, but not necessarily, have an IgE response directed to one but not both of these proteins. Structurally homologous proteins that can be used as scaffold proteins reasonably include endogenous self proteins which, except in autoimmunity, are not recognized by self antibodies, and as such it is unclear how immunogenicity would be maintained since it is not inherently present. Further, it is known that allergenicity cannot be determined *a priori* on a structural basis, and as such experimentation is required to ensure that the claimed hybrid peptides actually exhibit reduced allergenicity (Bumenthal et al., in Allergens and Allergen Immunotherapy, pages 37-50, see entire document, particularly the last sentence of the third full paragraph of page 39 and the first sentence of the third full paragraph of page 42). Even when epitopes know to be important for binding to IgE have been identified, it is not predictable how changes to such sequence can result in removal of IgE binding and hence reduced allergenicity (Burks et al., Eur. J. Biochem, 1997, 245:334-339, see entire document, particularly the top right of page 338). It is also known that induction of an allergic response is a complicated process involving the interplay of diverse genetic and environmental factors that are not fully understood (Blumenthal et al., see entire document), and the relation of these factors are not further clarified by the teachings of the instant specification.

Therefore, based upon the breadth of applicant's claims, the evidence concerning the inoperability of small peptide sequences in applicant's claimed hybrid proteins especially those under 9 amino acids in length, the unpredictability of maintenance of structure in light of insertions and substitutions of amino acid sequences, the difficulty in identifying "homologous sequences" for use in the instant invention, and the unpredictability concerning diminution of IgE binding and therefore allergenicity, and all of the other factors discussed above, it appears that a skilled artisan would need to perform an undue amount of research in order to make and use the full breadth of applicant's claimed invention.

Applicant's arguments filed August 24, 2006 have been fully considered but they are not all persuasive. Applicant first argues that the ground of rejection based upon the recitation of "about 6" is rendered moot by applicant's claim amendments received August 24, 2006.

In view of said claim amendments which remove the recitation of "about 6", this part of the rejection of record has been withdrawn.

Applicant also argues that maintenance of structure of hybrid allergens is predictable, stating "Therefore, it is well known in the art that either insertion or substitution would allow the hybrid to maintain the structure of the scaffold protein while

providing for a reduction of allergenicity with the retention of immunogenicity." These and other such assertions are made without reference to evidence, such as peer-reviewed publications or other art documents.

This argument is not persuasive because it is not supported by evidence. The rejection of record cites evidence as to why such hybrids are not predictable, notably the teachings of the '116 publication (of record). Applicant is reminded that attorney argument is not evidence unless it is an admission, in which case, an examiner may use the admission in making a rejection (See MPEP § 2129 and § 2144.03) and that the arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997).

Applicant argues that the nature of the epitope (linear, conformational or a combination of the two) is immaterial to the claimed invention, that while Harlow teaches that an epitope of 10 or more amino acids is optimal, the teachings of Harlow do not indicate that epitope of 6 amino acids will not work.

This argument is not convincing because applicant's own examples demonstrate that hybrid allergens comprising an epitope of 8 amino acids did not work and because other art documents such as King et al. (of record) state that epitopes even larger than 10 amino acids should be used. The nature of the epitope to be used in the invention is important since as taught by King et al. (2001, of record) most allergic epitopes are discontinuous and are dependent upon the native conformation of the allergen yet the specification does not provide adequate guidance concerning the structure that the hybrid allergens are required to comprise. Further, it is known that the structure of an allergen cannot be known a priori and that alteration of an allergen to reduce immunogenicity is unpredictable even when the epitopes responsible for binding IgE have been previously identified (Bluementhal et al. and Burks et al., both of record).

Applicant argues, "The claims recite that the allergen hybrid protein has reduced allergenicity but retains immunogenicity. Thus, a hybrid that does not elicit a response would not be covered by the claims."

As stated above, alteration of IgE epitopes to reduce allergenicity (i.e. IgE binding) is not predictable (see especially Burks et al., of record), and the teachings of the instant specification do not appear to provide sufficient guidance to make such alterations predictable for the genus of all allergens. As such, a skilled artisan would need to engage in undue trail and error experimentation to identify hybrid allergens that are encompassed by the instant claim limitations.

Applicant further argues that a skilled artisan could reasonably identify "structurally homologous" proteins for use as scaffolds in the instant claimed products based upon the definition of "structural homology" on page 18, lines 22-25 of the instant specification, and that the standard for enablement is not lack of experimentation but lack of undue experimentation.

This argument is not convincing because the definition requires knowledge of the three-dimensional shape of a protein, yet as stated in the rejection of record, the breadth of the claims read on hybrid allergens for which the three-dimensional structure is not known. Further, as taught by Burks et al., altering IgE epitopes in an allergen to reduce allergenicity is not predictable, and therefore such alterations require undue experimentation via trial and error.

Therefore, based upon the breadth of the claimed invention, the lack of guidance and small number of working examples in the specification, and the teachings of the art concerning the unpredictability of allergenicity of polypeptides, the rejection of record is maintained since a skilled artisan would be required to conduct undue trials and errors to make and use the full breadth of the claimed invention.

5. Claims 1-4, 7-13 and 17-19 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention for the reasons of record.
The office action mailed May 3, 2006 states:

Applicant has broadly claimed hybrid proteins comprising peptide epitopes of an allergen and a scaffold protein. The identity of the allergen and scaffold can be anything in the broadest claims, are limited to wasp antigen 5 polypeptides in dependent claims, and applicant has made and gathered data concerning hybrid proteins comprising wasp antigen 5 sequences *V. vulgaris* and *P. annularis*. Some of the hybrid proteins made by applicant retain immunogenicity while exhibiting reduced allergenicity, while others do not (see particularly table 3B on page 56). It is known in the art that allergenicity, or a lack thereof, cannot be determined *a priori* on a structural basis (Bumenthal et al., in Allergens and Allergen Immunotherapy, pages 37-50, see entire document, particularly the last sentence of the third full paragraph of page 39 and the first sentence of the third full paragraph of page 42), and that even when epitopes know to be important for binding to IgE have been identified, it is not predictable how changes to such sequence can result in removal of IgE binding and hence reduced allergenicity (Burks et al., Eur. J. Biochem, 1997, 245:334-339, see entire document, particularly the top right of page 338). As such, there does not appear to be a core structure known in the art or disclosed in the specification that would allow a skilled artisan to know that a molecule has or does not have allergenicity due to the presence or absence of this core structure. The claims also recite that the scaffold protein and protein allergen are to be structurally homologous, but the specification does not appear to indicate what requirements must be met for a scaffold protein to be selected as "structurally homologous" to the allergen protein. Solved X-ray crystal structures as well as computer-based sequence alignments are indicated as being useful tools in identifying homologous sequences, but the criteria to be used when implementing these tools does not appear to be disclosed. It is also known in the art that amino acid sequence identity of 50% does not guarantee structural similarity (Yuan et al., Proteins, 1998, 30:136-143, see entire document), and that even a single point mutation in a polypeptide sequence can lead to surprising alterations in protein structure and activity (Sergel et al., J. Virol. 2000, 74:5101-5107, see entire document, particularly the abstract, introduction and the last sentence in the right column of page 5106).

The guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, § 1 "Written Description" Requirement make clear that if a claimed genus does not show actual reduction to practice for a representative number of species, then the Requirement may be alternatively met by reduction to drawings, or by disclosure of relevant, identifying characteristics, i.e., structure or other physical and or chemical properties, by functional characteristics coupled with a known or disclosed correlation between function and structure, or by a combination of such identifying characteristics, sufficient to show the applicant was in possession of the genus (Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001, see especially page 1106 column 3). As discussed above, the correlation between structure and reduced allergenicity (i.e. decreased IgE binding) is not known in the art and does not appear to be taught in the instant specification. Further, the relevant structural features that are to be used in identifying "structurally homologous" proteins are not well defined. In light of this, one of skill in the art would reasonably conclude that the disclosure fails to provide a representative number of species to describe the genus of all allergen hybrid proteins. Thus, Applicant was not in possession of the claimed genus of all allergen hybrid proteins. Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, § 1 "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001.

6. Applicant's arguments filed August 24, 2006 have been fully considered but they are not persuasive. Applicant argues that the specification defines "structurally homologous" proteins and that this definition is based upon structure, not sequence identity.

This argument is not convincing because the definition in the specification requires 70% or more three-dimensional structure overlap, yet the claims encompass allergens for which no three-dimensional structures are available. Further, the specification does not teach a core structure present in all allergens, and based upon

the teachings of Blumenthal et al. (of record) it does not appear that there is any core structure shared among the members of the genus of all allergens.

In The Regents of the University of California v. Eli Lilly (43 USPQ2d 1398-1412) 19 F. 3d 1559, the court held that disclosure of a single member of a genus (rat insulin) did not provide adequate written support for the claimed genus (all mammalian insulins). It should be noted that the structures present in the genus of all mammalian insulins are significantly more "structurally homologous" than the genus of all allergens since allergens comprise a very wide range of sizes, structures and sequences. In Lily, the court also noted:

> "A definition by function, as we have previously indicated, does not suffice to define the genus because it is only an indication of what the gene does, rather than what it is. See Fiers, 984 F.2d at 1169-71, 25 USPQ2d at 1605-06 (discussing Amgen). It is only a definition of a useful result rather than a definition of what achieves that result. Many such genes may achieve that result. The description requirement of the patent statute requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See In re Wilder, 736 F.2d 1516, 1521, 222 USPQ 369, 372-73 (Fed. Cir. 1984) (affirming rejection because the specification does "little more than outlin [e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate."). Accordingly, naming a type of material generally known to exist, in the absence of knowledge as to what that material consists of, is not a description of that material."

The court has further stated that "Adequate written description requires a precise definition, such as by structure, formula, chemical name or physical properties, not a mere wish or plan for obtaining the claimed chemical invention." Id. at 1566, 43 USPQ2d at 1404 (quoting Fiers, 984 F.2d at 1171, 25 USPQ2d at 1606). Also see Enzo-Biochem v. Gen-Probe 01-1230 (CAFC 2002).

As previously discussed, the specification does not appear to disclose the three-dimensional structures for all allergens and their homologous scaffolds. The structures of many allergens are unknown, and it is logical that what is unknown cannot be adequately described. Further, the working examples convey only to the vespid venom antigen 5 proteins of *V. vulgaris* and *P. annularis*, such structures not being representative of or structurally homologous to the genus of all allergens. As such,

there does not appear to be adequate written description for "structurally homologous" proteins in the instant specification.

Therefore, it appears that the broad genus hybrid allergens claimed by applicant lacks adequate written description because the breadth of the recited structural requirements are not taught in the specification or in the prior art. As such a skilled artisan would reasonably conclude that applicant was not in possession of the claimed genus of hybrid allergens at the time the application was filed.

7. No claims are allowable.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Szperka whose telephone number is 571-272-2934. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Szperka, Ph.D.
Patent Examiner
Technology Center 1600
November 6, 2006

11/11/06
G.R. EWOLDT, PH.D.
PRIMARY EXAMINER